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Source: *World Politics*, Vol. 46, No. 2 (Jan., 1994), pp. 209-234

Published by: Cambridge University Press

Stable URL: <http://www.jstor.org/stable/2950673>

Accessed: 28-08-2017 22:39 UTC

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# “LESS FILLING, TASTES GREAT”

## The Realist-Neoliberal Debate

By EMERSON M. S. NIOU and PETER C. ORDESHOOK\*

THE debate between realists and neoliberals focuses on two issues: (1) delineating the goals that best account for the actions of states, especially patterns of cooperation and conflict; and (2) assessing whether institutions of different types can ameliorate conflict in an otherwise anarchic environment. Realists for their part concede that states may be concerned in the long run with absolute welfare; but they also believe that states, faced with inevitable threats to their survival, *must* concern themselves with relative position as measured by military capability, economic productivity, and the like—thereby attenuating the likelihood of cooperation and the role of institutions as facilitators of cooperation. Neoliberals, by contrast, draw on the lessons of scenarios such as the repeated Prisoners’ Dilemma and the myriad instances of actual cooperation in international politics and hence see less reason for supposing that states are concerned *necessarily* with relative gain. Consequently, they see greater opportunity for cooperation and an expanded role for institutions as facilitators of that cooperation.

This debate remains unresolved. Thus, out of frustration or a belief that logical argument cannot settle the matter, some look for answers from empirical evidence: “The next scholarly task is to conduct tests of the two approaches.”<sup>1</sup> We argue here, however, that this conclusion is premature. First, we cannot formulate a critical test of these two approaches, because both sides of the debate speak more in terms of general tendencies and employ concepts (for example, power, regime, hegemon, relative gain) that, although treated as theoretical primitives, are too imprecise to lend themselves to discriminating hypotheses. Second, neither a theoretical nor an empirical focus on state goals can make the decisive theoretical contribution. Aside from some specification of “basic” goals such as that each state prefers to maximize the welfare of its society, understanding international politics does not require a prior determina-

\* This research was supported in part by a grant from the U.S. Institute of Peace. We also wish to acknowledge the helpful comments and criticisms of Tom Schwartz, Peter Lange, and Joseph Grieco.

<sup>1</sup> Joseph M. Grieco, “Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism,” *International Organization* 42 (Summer 1988), 503.

tion of instrumental goals. Such goals must be endogenous to any theory that might resolve the debate. Finally, although generality is sought with appeals to ideas drawn from the rational-choice paradigm and game theory in particular, both sides misconstrue the content of those ideas or draw misleading implications from them. Nevertheless, we can discern a general perspective in which the debate is transformed from an inconclusive discussion of goals into a more productive assessment of the likelihood that states will coordinate cooperatively or competitively, where this likelihood depends on things such as prior subjective beliefs, chance events, and the ease with which states can signal their intentions.

Elaborating these arguments, we begin in Section I with two uncontroversial propositions: that states share the basic goal of absolute welfare maximization (as measured by some calculation of the "resources" at its disposal) and that they become concerned about their position relative to other states only when circumstances establish such a concern as instrumental to realizing basic objectives. To be productive, the realist-neoliberal debate over the implications of these two propositions must consider the analysis of equilibria of complete systems in which instrumental goals and circumstances are jointly and simultaneously determined, rather than argue whether anarchic systems necessarily imply an instrumental goal of relative resource maximization, whether the possibility of cooperation allows for the maximization of absolute resources, or whether relative resource maximization implies the outcomes that realists foresee. Instead of supposing that we must choose between modeling states as maximizers of absolute or relative gain, these instrumental goals should be treated merely as part of the description of the equilibria that systems of countries can achieve.

Next, we argue in Section II that although metaphorical appeals to parts of game theory like the repeated Prisoners' Dilemma and the Battle of the Sexes illustrate fundamental aspects of cooperation in anarchic systems, we need to take advantage of more general principles to achieve a general understanding of when a world order corresponding to the one envisioned by realists is likely to prevail and when that envisioned by neoliberals is more likely. Because virtually every ongoing social process possesses a multiplicity of equilibria, opportunities to cooperate and the concomitant problem of coordinating to one of these equilibria are omnipresent. If cooperation involves the joint selection of strategies that avoid mutually disadvantageous outcomes in favor of an advantageous equilibrium relative to the status quo or vector of individual security values,<sup>2</sup> and if coordination is the selection of a particular equilibrium on

<sup>2</sup> See, e.g., Robert O. Keohane, *After Hegemony* (Princeton: Princeton University Press, 1984), 54.

the basis of individual beliefs about actions that derive from something other than the abstract properties of that equilibrium, then for broad classes of circumstances, cooperation cannot be expected to occur reliably without coordination.

It follows that the study of those things that facilitate or impede coordination is a necessary feature of any theory of international processes. Indeed, Section III emphasizes that the concept of coordination already plays a central role in international relations theory insofar as that theory conceptualizes the institutions and regimes that service wholly cooperative arrangements and those that service more conflictual world orders as mechanisms for coordinating states to particular outcomes or as manifestations of coordination.<sup>3</sup> We also argue in this section that domestic and international politics are not, as is oftentimes asserted, conceptually distinct. It is incorrect to hold that international affairs are anarchic and that domestic affairs are something else; rather, the appearance of difference derives from the extent to which coordination occurs at one level of human interaction and not at another.

To have any confidence in our arguments, however, we must be certain that the different world orders identified by realists and neoliberals—those in which states are concerned primarily with survival and relative gains versus those in which states cooperate on a more comprehensive basis and pursue absolute gains, respectively—can coexist as equilibria in the same general model. That would allow us to explore the circumstances under which one equilibrium or the other might be more attractive. To that end, in Section IV we review a specific model of anarchic systems in which those world orders do coexist.

The central premise of this essay is that the realist-neoliberal debate can yield a general theory only if it is recast to focus on the likelihood that states will coordinate to achieve equilibria of different types. The argument over the type of international system that prevails and the instrumental goals of states is an argument over whether states are more likely to coordinate to wholly noncooperative outcomes, to partially cooperative outcomes characterized by competing alliances, or to wholly cooperative outcomes such as an all-encompassing system of collective security. Within these world orders, we should also examine how states

<sup>3</sup> For relevant examples of an understanding of the centrality of coordination to international politics, see Oran R. Young, "International Regimes: Problems of Concept Formation," *World Politics* 32 (April 1980); Arthur A. Stein, "Coordination and Collaboration: Regimes in an Anarchic World," *International Organization* 36 (Spring 1982); Duncan Snidal, "Coordination versus Prisoners' Dilemma: Implications for International Cooperation and Regimes," *American Political Science Review* 79 (September 1985); Stephen D. Krasner, "Global Communications and National Power: Life on the Pareto Frontier," *World Politics* 43 (April 1991); Geoffrey Garrett, "Power Politics and European Integration" (Mimeo, Stanford University, 1992).

enhance the attractiveness of different equilibria, how they signal commitments to the strategies that lead to them, and ultimately how cooperation and conflict across different issue-areas reinforce or undermine the alternative world orders that characterize the interactions of states generally.

### I. GOALS AS ENDOGENOUS

The dispute over goals is summarized by the following assertions: from one side that “in a self-help system, considerations of security subordinate economic gain to political interest”<sup>4</sup> and more ambiguously from the other side that “under different systemic conditions states will define their self-interest differently. . . . Where survival is at stake efforts to maintain autonomy may take precedence over all other activities; but where the environment is relatively benign energies will also be directed to fulfilling other goals.”<sup>5</sup> Of course, the issue of goals is secondary to the issue of whether cooperation can emerge and be sustained in an anarchic environment, that is, in an environment in which agreements among countries to abide by particular strategies cannot be maintained by exogenous mechanisms of enforcement. Instead, such agreements must be maintained, if they can be at all, by the individual self-interest of those who are party to them. In game-theoretic terms, cooperative outcomes must correspond to an equilibrium to the noncooperative game that models choice sequences, information, and the relation of outcomes to the choices countries confront.

The lesson of the repeated Prisoners’ Dilemma—that the absence of exogenous enforcement need not preclude cooperation, including that which encompasses all persons—confronts realists with a special challenge and imparts to the issue of goals its apparent relevance.<sup>6</sup> Correspondingly, realists meet this challenge with the argument that the dilemma does not model the core of international politics. This argument is defended, in turn, by the view that the imperatives of anarchic systems

<sup>4</sup> Kenneth Waltz, *Theory of International Politics* (New York: Random House, 1979), 107.

<sup>5</sup> Robert O. Keohane, *International Institutions and State Power* (Boulder, Colo.: Westview Press, 1989), 62. Of course, any such discussion should contend with the difficulties associated with attributing goals to collectivities; see, e.g., Kenneth Arrow, *Social Choice and Individual Values* (New Haven: Yale University Press, 1951). Nevertheless, the concept of the state as a rational unitary decision maker remains a convenient abstraction that allows us to ignore temporarily how international affairs affect domestic politics and how domestic politics transforms the goals of individuals into state actions.

<sup>6</sup> Michael Taylor, *Anarchy and Cooperation* (New York: Wiley, 1976); Robert Axelrod, *The Evolution of Cooperation* (New York: Basic Books, 1984); Robert Axelrod and Robert O. Keohane, “Achieving Cooperation under Anarchy,” in Kenneth A. Oye, ed., *Cooperation under Anarchy* (Princeton: Princeton University Press, 1986).

compel states to be primarily concerned with relative gains. As Powell summarizes the realist view, "If . . . one state can turn a relative gain to its advantage and the disadvantage of others, then [the system's constraints] will induce a concern for relative gains and this may impede cooperation absent any superior authority to ensure that these gains not be used in this way."<sup>7</sup> Thus, in the realist view, the imperatives of survival confront states with a security dilemma and not a Prisoners' Dilemma—with a dilemma that admits of the elimination of subsets of states rather than merely some inefficient outcome. This compels states to be primarily concerned with relative gain, which renders competition constant sum and in turn precludes all but limited cooperation.

Thus, we can restate the realist-neoliberal debate. First, since the debate is largely over the instrumental goals states pursue as a function of their environment, we can assume that both realists and neoliberals accept the following proposition:

P1. A state's fundamental goal is absolute welfare maximization, which, ignoring the complexities introduced by contemporary social choice theory, can be operationalized in terms of the maximization of some aggregate measure of the resources at a country's disposal. However, a state may act as if it pursues other objectives whenever circumstances require it do so to achieve this goal.

To this assumption realists and most neoliberals add the proposition that "domestic systems are centralized and hierarchic. . . . International systems are decentralized and anarchic. The ordering principles of the two structures are distinctly different, indeed, contrary to each other."<sup>8</sup> That is,

P2. International affairs differ from domestic affairs in that international affairs lack (exogenous) mechanisms for enforcing agreements.

On the basis of P1 and P2, the realist argument, stated starkly, becomes:

P3. The anarchic environment of international politics compels states to be concerned at all times with survival, which requires that they supplant the pursuit of absolute welfare maximization with the instrumental goal of relative resource maximization.

P4. A concern with relative resource maximization renders the lessons of the Prisoners' Dilemma irrelevant and makes cooperation, except in the form of competing alliances, impossible or merely temporary.

<sup>7</sup> Robert Powell, "Absolute and Relative Gains in International Relations Theory," *American Political Science Review* 85 (December 1991), 1306.

<sup>8</sup> Waltz (fn. 4).

Neoliberals, on the other hand, substitute these propositions for P3 and P4:

P3'. In those instances in which the mutual (absolute) gains from cooperation are sufficiently great, the Prisoners' Dilemma teaches us that the absence of exogenous mechanisms of enforcement does not preclude effective cooperation.

P4'. Although survival may take precedence over all other activities, at other times states can pursue other goals.

Much of the debate over goals can be set in the context of these propositions, and doing so reveals the incompleteness of both arguments. First, consider P4 and the assertion that "under zero-sum conditions there is no basis for regimes and no reason to coordinate policies, because one actor's loss is another's gain."<sup>9</sup> Not only is this assertion wrong for scenarios with more than two people (since a subset of people can gain at the expense of others), but it is also suspect for two-person situations. We can of course make cooperation impossible by transforming the Prisoners' Dilemma in Game 1 to Game 2 (see Figure 1) with the assumption that players maximize payoff differences. However, suppose states also consider absolute resources at the margin; that is, suppose they have lexicographic preferences and thus consider absolute position when they are otherwise indifferent about their relative position. Then the ordinal utilities in Game 3 describe the preference of both players. Notice now that Game 3 is also a Prisoners' Dilemma. Hence, even a minor "adjustment" in the assumption that states maximize relative position readmits the possibility of cooperation.

Such examples alert us to the fact that conclusions about cooperation depend on how goals are modeled. This problem is compounded, moreover, by the inherent ambiguity in formalizing relative resource maximization when the number of countries exceeds two. For example, ignoring how the  $R_i$ 's are defined or measured, let  $(R_1, R_2, \dots R_n)$  denote the resources controlled by countries 1, 2, . . .  $n$ . Then perhaps the most straightforward way to formalize relative gain maximization is to as-

5, 5	20, 0	0, 0	20, -20	2, 2	4, 1
0, 20	10, 10	-20, 20	0, 0	1, 4	3, 3

Game 1

Game 2

Game 3

FIGURE 1

<sup>9</sup> Krasner (fn. 3), 338.

sume that state  $i$  simply maximizes its proportion of resources in the system; that is,

$$\frac{R_i}{\sum_{j=1}^n R_j}$$

However, to facilitate the derivation of results, Snidal formulates this goal as the maximization of the following function:<sup>10</sup>

$$R_i - \sum_{j \neq i} \frac{R_j}{n}$$

Both formulations, though, ignore the possibility that  $i$ 's proportion of resources can increase even as another country surpasses  $i$ . Hence, rather than being concerned with averages, country  $i$  might be concerned with its position relative to the largest country in the system and thereby maximize,

$$R_i - \text{MAX}_{j \neq i} [R_j]$$

Alternatively, why not suppose that country  $i$  focuses its attention on some subset of countries—those near its borders or outside of its alliance—and thereby maximizes its position relative to the largest country in this subset?

Certainly, we can imagine other formulations that are consistent with the hypothesis that countries maximize relative resources. But because, as the discussion of Games 1–3 reveals, conclusions may depend on how we formalize things and because there is ambiguity about the “correct” formulation, we can see that basing a model on some specific formalization is unlikely to be productive. Because, in accordance with proposition P1, the goals we observe are derivative of circumstances, the appropriate formulation can be discerned only from a more comprehensive theory that allows us to derive the algebraic representation of instrumental goals from the primary ones of survival and absolute resource maximization.

This raises a problem that neither the realist nor the neoliberal argument addresses fully: that “national policies both influence and are influenced by the types of world order which prevails at the time.”<sup>11</sup> That is, the degree to which a state must concern itself with relative resources depends on the willingness of other states to cooperate; but that willingness is itself dependent on the goals of other states, which depend on the goal and actions of the state in question, and so on.

<sup>10</sup> Duncan Snidal, “International Cooperation among Relative Gains Maximizers,” *International Studies Quarterly* 35 (December 1991).

<sup>11</sup> Quincy Wright, *A Study of War*, 2d ed. (Chicago: University of Chicago Press, 1965), 1493.



To restate Wright's argument and to identify what is missing from or unstated in the arguments summarized by P3–P4 and P3'–P4', suppose  $G = G(E)$  denotes the dependence of goals on the environment a state confronts, where that environment includes descriptions of the capabilities of states, the choices they confront, domestic political constraints and responses to international events, and beliefs about the choices that others will make in the future. But notice that if the environment includes the strategies of countries in the system (for example, military preparations, alliances, trade policies), which are themselves dependent on goals, then  $E$  is a function of  $G$  and we must write  $E = E(G)$ . It follows that we cannot solve separately for  $G$  or  $E$ . Instead, we must solve for both variables simultaneously because the consequences of goals and of alternative environmental conditions are identified only by solving for an *equilibrium* value of these variables. That is, we must find those  $[G^*, E^*]$  such that if  $E^*$  is the environment of states, then states act as if their goals are  $G^* = G(E^*)$ ; and if  $G^*$  denotes the goals of states, then they choose strategies such that  $E^* = E(G^*)$  pertains. And because there is no reason to suppose that such equilibria are unique, it also follows that we must learn (1) whether the interaction of states is likely to lead to an equilibrium, (2) how the character of an equilibrium depends on other things such as the initial beliefs of decision makers, and (3), in general, the circumstances under which one equilibrium is selected over another or whether in fact any equilibrium will be achieved.

This argument is relevant to a number of studies that seek to resolve the debate in favor of one side or the other. Snidal, for example, purports to show that assumption P4 is erroneous—that the realists' predictions about the impossibility of cooperation do not follow from their assumptions about goals.<sup>12</sup> Snidal's argument is flawed, however, in that he fails to allow the resulting strategic imperatives to influence the determinants of goals. In his notation, the weight  $r$  given to relative resource maximization ought to be made functionally dependent on the environment that  $r$  helps establish. Assuming that  $r$  is an exogenously determined constant allows for only a partial and necessarily inconclusive argument.

By contrast, Krasner defends the view that “power needs to be given pride of place” within the neoliberal framework. He argues that in proposition P3' neoliberals give too much weight to the resolution of “market failure” and too little to the bargaining among states that determines which Pareto-efficient outcome prevails.<sup>13</sup> Interactions among states are

<sup>12</sup> Duncan Snidal, “Relative Gains and the Pattern of International Cooperation,” *American Political Science Review* 85 (September 1991).

<sup>13</sup> Krasner (fn. 3), 366.

not exclusively concerned with ensuring Pareto efficiency; they can also be a competition for advantage in which power determines final outcomes. However, if we accept Krasner's definition of power as "the ability to determine who plays the game, or to define the rules, or to change the values within the payoff matrix," then generalizing his analysis requires a model of a more inclusive game in which players select these parameters.<sup>14</sup> For example, the idea that power determines the ability to influence bargaining outcomes establishes power as an instrumental variable whose weight is dictated by its value with respect to realizing some more basic goal. It follows that Krasner's argument is incomplete. Although he is convincing in his empirical analysis that there is at least one equilibrium environment  $E^*$  in which  $G^* = \{\text{power maximization}\}$ , we cannot be certain that this equilibrium is unique until we specify a strategic environment in which states choose (implicitly or explicitly) to make decisions on the basis of power. Such an environment models anarchic systems and renders  $E$  and  $G$  endogenous.

Powell avoids ad hoc formulations of goals and approaches this theoretical ideal by offering a specific mechanism that renders goals endogenous.<sup>15</sup> But even his analysis, which formalizes P4', is incomplete (deliberately so, since his objective is merely to show how the goal of absolute gain is rationally transformed into a concern with relative gain). The determinants of goals are the "constraints defining the system [that] create opportunities for one state to turn relative gains to its advantage and to the disadvantage of others."<sup>16</sup> In addition to technology, these constraints include the actions of third parties, fourth parties, and so on (Powell's model is two-person), as well as the institutional structures set up to influence those actions. But because such constraints are clearly endogenous, Powell's analysis cannot supply any definitive resolution of the realist-neoliberal debate.

## II. THE MULTIPLICITY OF EQUILIBRIA

The preceding discussion argues that goals and environment are endogenous and simultaneously determined, that the realist-neoliberal debate takes inadequate account of this fact, and that we are unlikely to resolve the debate merely by postulating a goal and seeing if certain consequences follow from it. Instead, we must formulate a more comprehensive analysis that renders  $E$  and  $G$  endogenous. But, in anticipation of

<sup>14</sup> Ibid, 342.

<sup>15</sup> Powell (fn. 7).

<sup>16</sup> Ibid., 1315.

what such an analysis is likely to reveal, notice that nothing we have said establishes that  $[E^*, G^*]$  will exist or, if it exists, that it will be unique and will correspond to the scenario described by either realists or neoliberals. Indeed, there are sound reasons for supposing that  $[E^*, G^*]$  will exist but that it will not be unique and that this fact suggests a research agenda different from the one pursued in arguments over instrumental goals.

Owing to an initial focus on single-play versions of the Prisoners' Dilemma, political scientists became especially concerned that the absence of an effective way to enforce agreements precluded socially rational cooperation. Thus, sustaining cooperation as an equilibrium to a noncooperative game by supposing that the dilemma is repeated seemed like a critical theoretical result. However, another game, the two-person Battle of the Sexes, served to emphasize the relevance of coordination in political processes.<sup>17</sup> Referring to Game 4 (see Figure 2) and recalling that an equilibrium is a vector of strategies, one for each player, such that no one has an incentive to change his or her strategy unilaterally, the important feature of this game is that it has two pure strategy equilibria,  $(a_1, b_1)$  and  $(a_2, b_2)$ , that are neither equivalent (each person prefers a different equilibrium) nor formed by interchangeable strategies (combining strategies from different equilibria need not yield an equilibrium). Thus, each player can choose a strategy that is part of some equilibrium and yet an equilibrium *outcome* does not prevail, for example, the strategy pair  $(a_1, b_2)$ .

There are two approaches to “solving” the problem illustrated by the Battle of the Sexes, only one of which is generally valid. The first operates on the assumption that the inability of the analyst to predict outcomes or of players to “solve” a game derives from the failure to take full account of strategic circumstances, including, for instance, the “power” of players to coerce each other by implementing strategies not portrayed in a game. Game 4 in particular appears to confront players with a situation in which they might try to assure an equilibrium through some process of “preplay” bargaining and in which prediction

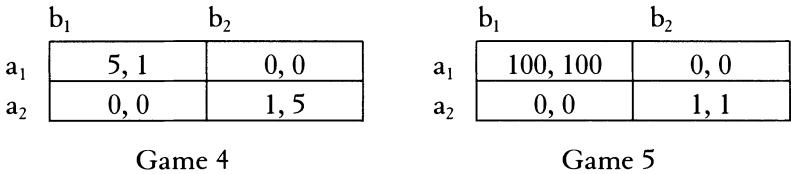


FIGURE 2

<sup>17</sup> See, e.g., Stein (fn. 3); Snidal (fn. 3); and Krasner (fn. 3).

requires an analysis of those things that might affect the ability of one player to coerce or otherwise influence the actions of the other. Set in the usual context of international relations theory, this approach seeks to resurrect the relevance of "power" for situations that might otherwise be modeled as nonconstant sum.

The second approach argues that any expansion of strategic possibilities would most likely generate larger Battle of the Sexes-type games with a multiplicity of nonequivalent, noninterchangeable equilibria. In this view, prediction continues to require an appeal to things other than formal definitions of equilibria. In particular, prediction requires an appeal to those things that generate rational expectations—initial beliefs about choices that are self-fulfilling prophecies (focal points in Schelling's terminology).<sup>18</sup> Referring to Game 4, suppose on the basis of past behavior or even the mere labeling of strategies that, first, 1 believes 2 thinks that he will choose  $a_1$  so that 2 will choose  $b_1$  and, second, that 2 believes 1 thinks that she will choose  $b_1$  so that 1 will choose  $a_1$ . Because the choices implied by these beliefs are an equilibrium, beliefs are consistent and we can say that persons 1 and 2 have "coordinated to  $(a_1, b_1)$ ." In Game 5, which also has two nonequivalent, noninterchangeable pure strategy equilibria, consistent beliefs are likely to arise from the attractiveness of  $(a_1, b_1)$ , and so this game seems to have an easily identified solution. More generally, though, one must be prepared to find that these beliefs and conjectures (these subjective evaluations of circumstances) derive from a great many things that analysts may not even be capable of observing, with the further understanding that "even seemingly trivial aspects of the way the game is presented [can] determine the focal equilibrium that the players implement."<sup>19</sup>

Thus far, we have not said much that is new. We want to emphasize, however, that because the things the Battle of the Sexes illustrates apply to virtually all social processes, the approach just outlined cannot provide a definitive general resolution of matters. Support for this argument is provided, in part, by any one of the folk theorems of game theory, which show that the primary lesson drawn from the repeated Prisoners' Dilemma about the possibility of cooperation without exogenous enforcement does not require the dilemma for its validity.<sup>20</sup> If people give the future sufficient weight and if they must choose strategies today that will

<sup>18</sup> Thomas Schelling, *The Strategy of Conflict* (New York: Oxford University Press, 1960).

<sup>19</sup> Roger B. Myerson, *Game Theory: Analysis of Conflict* (Cambridge: Harvard University Press, 1991), 113.

<sup>20</sup> Ibid.; and Drew Fudenberg and Jean Tirole, *Game Theory* (Cambridge: MIT Press, 1991).

be followed during all subsequent repetitions of some game, then we can sustain *any* utility outcome as an equilibrium in *any* ongoing (repeated) social process, provided only that that outcome yields each person a payoff that exceeds what that person can guarantee from unilateral (uncoordinated) action. The mechanism supporting this result is that if processes are repeated, including processes that allow the players to renegotiate agreements at different stages of their interaction, then people have a great many strategies (an infinity of them) and these strategies can be used to expand the sets of payoff outcomes that can be sustained as equilibria.

Although these folk theorems apply only to repeated games and share other limitations, the analysis of other general classes of games in the game-theoretic literature reveals that multiple equilibria characterize nearly any relatively complex situation. "It does not greatly matter whether it is the Battle of the Sexes that is repeated, or some other game. . . . What is important is that the whole spectrum of equilibria becomes available as a possible source of social contracts."<sup>21</sup> To the extent, then, that equilibria can be classified as cooperative or noncooperative, the possibility of cooperation *and* noncooperation must be deemed endemic to all social processes. If our sole criterion for assessing whether an outcome is feasible is whether it corresponds to an equilibrium, then just as we cannot preclude outcomes associated with cooperative strategies, we also cannot preclude outcomes labeled noncooperative.

These facts, then, support the view that the first approach to resolving Battle of the Sexes-type issues—expanding the strategies available to players by incorporating more things into the analysis—is unlikely to meet with much success. Trying to achieve an unambiguous prediction by incorporating preplay bargaining and considerations of power (especially if the expansion allows infinite sequences of moves or an uncertain number of finite sequences) is more likely to result in an increase in the number of equilibria, thereby complicating the task of predicting whether and how players will coordinate to any one equilibrium. Correspondingly, these facts establish that states are unlikely to cooperate if they cannot also coordinate, since without coordination there is no reason to suppose that any equilibrium will be achieved. Finally, prediction and explanation requires not only that we learn the strategies that support different outcomes but that we also learn how states coordinate and whether the requirements to coordinate to one type of equilibrium differ from the requirements to coordinate to another type.

<sup>21</sup> Ken Binmore, "Game Theory and the Social Contract I: Playing Fair" (Mimeo, University of Michigan, 1992).

### III. COORDINATION, CONSTITUTIONS, AND REGIMES

If the problem of coordination is as pervasive as suggested here, then at least two things should be true. First, this problem should manifest itself in all social processes, not merely in international ones. Second, this problem should, in one form or another, be recognized in the literature on international relations, or at least one should be able to reinterpret a good part of that literature in terms of the problem of coordination.

With respect to the first thing, let us reconsider the validity of proposition P2: why does the concept of power seem less central in domestic affairs than it does in international affairs, and do the means whereby people coordinate provide an alternative explanation for the appearance of a difference between international and domestic affairs? With respect to domestic politics, at one level we could attempt to account for policy outcomes in, say, a democratic society by referring to the power of interest groups, the media, the courts versus the legislature, or the legislature versus the executive. But closer inspection would reveal that many of the things associated with power or its determinants derive, whether implicitly or explicitly, from a constitution that defines the rules of "legitimate" political action. Presidential power derives from the manner in which that office is filled and from that office's ability to marshal public opinion; legislative power derives from the constitutional authority to tax and make law; and interest group power, from its ability to facilitate the reelection of legislators according to constitutionally prescribed rules, and so on. Thus, understanding domestic politics in terms of a specific constellation of power requires an understanding of why society's members implicitly or explicitly accede to the terms of a constitution that helps define and allocate power.

Of course, like international relations theorists, constitutional theorists are also concerned with the matter of endogenous enforcement—how a constitution's provisions are sustained, how a "piece of parchment" can contribute to political stability, and how correspondingly such a document can establish power relationships. The endogenous enforcement of constitutional provisions, like the issues that ostensibly separate realists and neoliberals, has long been debated owing to the seemingly paradoxical requirement that stable constitutions enforce themselves.

The essence of this paradox and the corresponding source of the temptation to account for stability in terms of power relations is revealed if we attempt to conceptualize a constitution as a contract that sets the terms of a market exchange.<sup>22</sup> Viewing a constitution thus necessarily

<sup>22</sup> Geoffrey Brennan and James M. Buchanan, *The Reason of Rules* (New York: Cambridge University Press, 1985).

leads to the question of who or what enforces the contract. That, in turn, leads to the search for the ultimate source of enforcement authority in society. But answering that the courts, the legislature, or the imperatives of electoral competition are the source of enforcement only pushes the problem back: who, one then asks, enforces the court's prerogatives, the legislature's jurisdiction, or the laws that regulate elections?

At least at the constitutional level, then, a state is in principle no less anarchic than an international system in the sense that the enforcement of constitutional agreements must be endogenous. Nevertheless, domestic and international politics appear distinct by virtue of the fact that being a state requires that people achieve some minimal level of coordination with respect to the implicit or explicit rules of domestic social process. Without denying the relevance of social norms, custom, and culture, even if we restrict our attention to formalized "democratic" rules, there are a great many alternative equilibria of rules. Thus, to realize the mutual benefits of a stable and coherent political system, the members of society must select one of these equilibria and thereby establish a stable set of expectations about legitimate process for the present and the future. Written constitutions are a route to that end.

It follows that constitutions are best conceptualized as mechanisms that coordinate society to an equilibrium of rules.<sup>23</sup> A constitution is stable and self-enforcing if it establishes a set of self-fulfilling expectations about due process, rights, and legitimate ways of making collective decisions. Moreover, conceptualizing constitutions in this way shows them to be part of the social fabric that coordinates society in general, as part of the regime that describes society and the state. And it leads to more practical questions such as how to craft rules to compete with other things that can coordinate social action (for example, ethnicity, religion, language).

It is true that the salience of the issue of exogenous enforcement fades once a constitution becomes a stable part of society. At that point, students of domestic politics can attend to other matters such as the details of judicial, legislative, or electoral process without regard to how the rules specifying the roles of judiciary, legislature, or elections are ultimately enforced. Lurking in the background, however, is the fact that the rules defining these branches and their power are sustained because acceptance of them describes some of the elements of social coordination.

<sup>23</sup> David Lewis, *Convention: A Philosophical Study* (Cambridge: Harvard University Press, 1969); Russell Hardin, "Why a Constitution," in Bernard Grofman and Arend Lijphart, eds., *The Federalist Papers and the New Institutionalism* (New York: Agathon Press, 1989); and Peter C. Ordeshook, "Constitutional Stability," *Constitutional Political Economy* 3 (1992).

Of course, realists might make the case that international and domestic politics are distinct by arguing that power dictates outcomes in pre-constitutional societies and that an international system is best described as such a society. Correspondingly, restating Krasner's argument, power, rather than some implicit adherence to rules, structures coordination.<sup>24</sup> Aside from noting that we have never observed a "state of nature" in which people act on some basis other than beliefs about the actions of others in a wholly uncoordinated fashion, we can also reassert our previous conclusion that such an expansion of considerations is more likely to expand the set of equilibria in our analysis than it is to provide any resolution of matters. For example, suppose, in asking how tyrants enforce their edicts, we respond: "Through coercion administered by the military or the police." But then we must ask: "Why do the military and police follow?" and our answer is "Because, given their private motives, the tyrant coordinates their actions to those ends better than any other entity." Even if everyone prefers to defect, they need not do so unless another coordinator (revolutionary leader) appears, because each person will otherwise anticipate that his or her defection will result in punishment.

Now consider a context in which Krasner's arguments seem more compelling—the period between tyranny and constitutional democracy when rules are negotiated. We agree that it is naïve to suppose that society in this period is merely "avoiding inefficient outcomes." Even those committed to democratic processes will seek a political order that best serves their interests. Constitutions are the product of forces in which agreements appear to be dictated by some notion, however ambiguous, of "relative power." But if we attempt to model this process of constitutional selection, then the elements of power should be part of that model. And barring the unlikely circumstance of a unique equilibrium, we must once again appeal to ideas about how people coordinate in order to predict the ways in which power will manifest itself. Moreover, as we illustrate in the next section, we can no longer appeal to the concept of power to explain coordination, since its components are already part of our description of the situation and since it is that description that occasioned multiple equilibria.

The concept of coordination, then, is key to understanding constitutional stability; it follows from our argument that realists, at least, must do more than argue that international and domestic politics are conceptually distinct. Instead, they must explain why they believe that coordi-

<sup>24</sup> Krasner (fn. 3).



nation can more readily be achieved at one level of social interaction than at another.

To what extent is the relevance of coordination already understood in international relations theory? Consider the concept of a hegemon and the reasons why the notion of regime is introduced to explain stability and cooperation in a period of posthegemonic decline. Rarely, if ever, is one country so predominant that it can impose its will on all states when its actions are uniformly opposed. It is more reasonable to view a hegemon as a state that, by its uncommon weight in international affairs, coordinates the actions of other states to some mutually beneficial outcome or that coordinates punishment strategies in the event one or another deviates from any agreement.

In focusing on a hegemon's coordinating function, we see why that role need not evaporate in the event of the hegemon's decline. If the equilibrium achieved under the hegemon is sufficiently advantageous to all states, the ex-hegemon may continue as the primary instrument of coordination long after it loses its near-predominant status or even after it loses its status as the leading power. What does disappear with the hegemon's decline, however, is its ability to punish individual states unilaterally and the expectation that it will do so. Thus, decline before countries develop other ways to coordinate can greatly disrupt a system's ability to maintain the prevailing equilibrium if that system experiences some exogenous shock.

In any event, it is not unreasonable to suppose that the cooperative equilibria achieved under a hegemon is more susceptible to disruption after a hegemon declines. And it is at this point that the neoliberal offers the idea of "regime" as a substitute for the hegemon's role. Indeed, the neoliberal's definition of a regime corresponds nearly identically to such a mechanism—"sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge,"<sup>25</sup> "a set of mutual expectations, rules and regulations, plans, organizational energies and financial commitments, which have been accepted,"<sup>26</sup> "recognized patterns of practice around which expectations converge,"<sup>27</sup> and "rules of behavior that allow actor expectations to converge."<sup>28</sup> Hence, in a way that is wholly consistent with the requirements set by game theory for achieving specific equilibria, neoliberalism places

<sup>25</sup> Stephen D. Krasner, *International Regimes* (Ithaca, N.Y.: Cornell University Press, 1983), 2.

<sup>26</sup> John G. Ruggie, "International Responses to Technology: Concepts and Trends," *International Organization* 29 (Autumn 1975), 570.

<sup>27</sup> Young (fn. 3), 337.

<sup>28</sup> Stein (fn. 3), 127.

the study of regimes as coordination mechanisms at the heart of international relations theory.

Cooperative outcomes, though, are only one class of equilibria, and coordination may also involve disputes over the selection of outcomes "along the Pareto frontier"—outcomes that may or may not entail overt conflict and the formation of competing alliances. Thus, to the extent that the realist view can be interpreted as an argument about the "naturalness" of coordination to a class of equilibria other than the ones neoliberals envision as feasible, realists and neoliberals are debating the relative ease with which states can coordinate to one equilibrium rather than another. Realists argue that it is "more natural" to coordinate to competitive equilibria (or to equilibria in which subsets of states—alliances—coordinate against other subsets), whereas neoliberals contend that institutions of various descriptions can effectively coordinate states to different (more universally cooperative) outcomes.

#### IV. A MODEL WITH "REALIST" AND "NEOLIBERAL" EQUILIBRIA

A restatement of the realist-neoliberal debate in terms of coordination takes us only part of the way toward freeing the discussion from a focus on instrumental goals. We now want to show, in addition, that both realist and neoliberal equilibria can coexist. On the one hand, we want to assess the argument that realist equilibria somehow impose fewer requirements on coordination than do the equilibria postulated by neoliberals. On the other hand, we want to assess whether an anarchic system can occasion equilibria in which power plays little or no role in addition to equilibria in which power is the central concern of states.

In searching for an appropriate model, we might begin again with the Prisoners' Dilemma. The usual representations of this dilemma do not allow for the elimination of states, even though Powell's analysis suggests routes around the problem.<sup>29</sup> Thus, the existence of a cooperative equilibrium there cannot be interpreted as a solution to any "security dilemma" that states confront. Moreover, unless we focus on  $n$ -person formulations and on strategies other than, say, Tit-for-Tat, the dilemma can mislead us about the viability of the neoliberal position. Analyses of the two-person dilemma focus on two equilibria: a "cooperative" one in which all mutual gains are realized through an equilibrium of various types of punishment strategies and a "non-cooperative" one in which the players forgo these gains and choose myopically dominant strategies. Of

<sup>29</sup> Powell (fn. 7); Joseph M. Grieco, *Cooperation among Nations: Europe, America, and Non-Tariff Barriers to Trade* (Ithaca, N.Y.: Cornell University Press, 1990).

these two equilibria, one is clearly more attractive than the other, so we might conjecture that coordination to it can be realized without great difficulty. But realists argue that reality offers states more compelling equilibria in which they form antagonistic alliances designed either to preclude the dominance of others (balance of power) or to subjugate others. Hence, the issue is not whether countries must choose between wholly cooperative equilibria (for example, collective security) and wholly competitive equilibria, but whether they can also coordinate to equilibria corresponding to competitive alliance structures.

One approach suggested by these criticisms is to consider  $n$ -person versions of the dilemma, strategies that allow only subsets of players to cooperate, and models that somehow nest Prisoners' Dilemmas and Battle of the Sexes scenarios.<sup>30</sup> But rather than forcing ourselves into the straitjacket of particular scenarios, a more productive approach would be to look at analyses that directly model the sources of conflict and cooperation, that allow for the elimination of countries, that allow for alliances, and that allow for collective security arrangements in which countries try to ensure against conflict in any form. Thus, it is useful to consider Niou and Ordeshook's analysis of cooperation; although a highly stylized characterization, it focuses on sustaining cooperation in a system in which there are no exogenous enforcement mechanisms.<sup>31</sup> Moreover, because it does this in a zero-sum environment, this model allows us to investigate the possibilities of cooperation that do not depend, as in the repeated dilemma, merely on there being gains of sufficient magnitude from trade. Cooperation, if it emerges at all, does so because defection from cooperative arrangements is punished by other states, each of which must weigh the advantage of participating in a punishment versus defecting themselves, conditional on their beliefs about the strategies of all other states in the system.

There is no reason to delve into the complexities of this model, which treats technical issues about stochastic games. It is sufficient to note that the model begins with the assumption that countries maximize some resource that measures their ability to overcome each other and that is in fixed supply. The game-theoretic structure of the model assumes that countries can propose alliances designed either to threaten other countries or to enforce collective security agreements; that alliance partners are given the chance to accept or reject offers; that threatened countries

<sup>30</sup> Garrett (fn. 3).

<sup>31</sup> Emerson M. S. Niou and Peter C. Ordeshook, "Stability in Anarchic International Systems," *American Political Science Review* 84 (December 1990); and idem, "Realism versus Neoliberalism," *American Journal of Political Science* 35 (May 1991).

can propose either counterthreats or resource transfers designed to "buy off" one or more of the threatening countries; that uncountered threats are implemented; that successful counters become new threats; and that unless a terminal state (a decision point at which no one has an incentive to make a threat), this threat-counterthreat scenario is repeated, possibly ad infinitum.<sup>32</sup>

Consider the simplest possibility—a three-country case—since this illustrates two of the three main types of (subgame perfect) equilibria. Specifically, if countries 1, 2, and 3 initially hold the resources  $150 > R_1 > R_2 > R_3 > 0$ , where  $R_1 + R_2 + R_3 = 300$ , then, those two equilibria are described thus:

E1. If given the first move, country 1 threatens (150,0,150), 2 threatens (0,150,150), and 3 passes or threatens (150,0,150) or (0,150,150). If 1 (or 2) offers (150,150,0) as the initial threat, then 2 (or 1) rejects; otherwise, the proposed partner accepts participation in the threat. If threatened with a loss of resources, 1 (2) transfers to the largest threatening country. If 3 is threatened, then it counters with (150,0,150) or (0,150,150) and 1 or 2 accepts participation in the counter, in which case 2 or 1 must transfer resources. The equilibrium outcome is an even chance lottery between  $(150, R_1 + R_2 - 150, R_3)$  and  $(R_1 + R_2 - 150, 150, R_3)$ .

E2. No state makes an initial threat, but if one is offered, the proposed partner "rejects." If the initial threat is rejected, then the "defecting" state is punished by being threatened in the next stage (and this threat is accepted). If two players defect by making and accepting an initial threat or by failing to punish, then play the game as described in E1. The equilibrium outcome here is the initial status quo,  $(R_1, R_2, R_3)$ .

<sup>32</sup> To illustrate this game's structure, suppose there are three countries with the initial distribution of resources (120,100,80). Then the sequence of moves is as follows:

Step 1. A country, chosen at random, moves first. Suppose this country is 1 and suppose it can threaten (150,150,0), (150,0,150), or "pass."

Step 2. If 1 passes, then 2 moves; and if 2 also passes, 3 moves (all moves parallel those of state 1 in the obvious way).

Step 3. If 1 threatens at step 1, its partner must decide whether to participate in the threat. If the partner declines to participate, then 2 moves as in step 2.

Step 4. If 1's partner accepts, the threatened state (2 if 1 threatens (150,0,150), 3 if 1 threatens (150,150,0)) must choose between transferring resources to 1 or offering a counterthreat. Counters for 2 are (0,150,150) and (150,150,0) whereas counters for 3 are (150,0,150) and (0,150,150).

Step 5. Suppose that if 2 or 3 proposes a transfer, it transfers to make 1 indifferent between its threat and the transfer. Hence, if 2 transfers, it proposes (150,70,80) whereas 3 proposes (150,100,50). Assume 1 accepts the transfer to avoid any cost of implementing a threat. And suppose that once anyone controls half the resources in the system, the game ends, because any subsequent action gives that country the opportunity to take advantage of conflicts, to become predominant, and to overcome all states in the system.

Step 6. If a threatened country instead proposes a counterthreat, its partner chooses between accepting or rejecting.

Step 7. If the counter is rejected, the original threat is implemented.

Step 8. If the counter is accepted, it becomes a new threat, and as in step 2, the threatened player much choose either a new counter or a transfer.

The first equilibrium corresponds to pure conflict in which a threat is made at the first opportunity and the threatened country, 1 or 2, survives only by buying off the largest threatening country. No country is eliminated, but only because each has sufficient resources to make a "game ending" transfer and because no one wants to allow anyone else to be predominant. Moreover, extensions of this analysis to  $n$ -countries reveals that countries can be eliminated or can become more susceptible to being forced to make a resource transfer if their resources diminish too greatly or if other states increase their resources too much. Hence, in an E1-type equilibrium, states are necessarily concerned with power and relative gain.

In contrast, the second equilibrium corresponds to an all-encompassing collective security system in which everyone agrees not to make an initial threat and defectors are punished by the remaining countries. Collective security here need not have a purely military connotation; it can refer also to various economic agreements that are enforced by punishment strategies applied to those who defect from trade, monetary, or other such agreements. Whatever its interpretation, cooperation (in the form of the absence of threats) is self-enforcing here, because punishments eliminate the benefits of defection and because administering those punishments is rational. In game-theoretic terms, this equilibrium (as well as the first) is *subgame perfect*.

We also want to emphasize that an E2-type equilibrium exists regardless of the number of countries and regardless of the distribution of resources. Moving somewhat beyond the confines of the formal analysis, it can be reasonably argued that in such an equilibrium states can pursue those subsidiary policies that generate mutual gains and, as in domestic politics, they can focus their attention on the construction of those institutional structures that regulate the Prisoners' Dilemma-type scenarios that arise among states outside of purely military considerations. Put simply, in an E2-type equilibrium, states need not concern themselves with relative gain at the expense of absolute gain.

Letting  $(R_1, R_2, R_3) = (120, 100, 80)$ , the situation that confronts the three countries in our example, then, is summarized by Game 6, which illustrates the game that results if each country must choose between playing in accordance with E1 or E2 (see Figure 3). For example, if 1 chooses E1 and 2 and 3 play according to E2, then 1 offers the initial threat (150, 0, 150), but 3 rejects and 2 and 3 subsequently punish 1 with the threat (0, 150, 150), thereby forcing 1 to transfer resources to 2. Hence, we enter (70, 150, 80) in cell (E1, E2, E2). In contrast, if 1 and 3 choose E1 but 2 chooses E2, then 1 and 3 threaten 2 and force a transfer to 1. Hence,

	E1		E2	
	E1	E2	E1	E2
E1	110, 110, 80	150, 70, 80	110, 110, 80	70, 150, 80
E2	70, 150, 80	110, 110, 80	150, 70, 80	120, 100, 80

Game 6

FIGURE 3

we enter (150,70,80) in cell (E1,E2,E1). If 1 and 2 choose E1 but 3 chooses E2, then either 1 or 2 makes an initial threat (depending on whom nature chooses first), 3 rejects, and the defector is punished so that either (150,70,80) or (70,150,80) prevails. Hence, we enter (110,100,80) in cell (E1,E1,E2). Notice now that this game has the two pure strategy equilibria, (E1,E1,E1) and (E2,E2,E2), we describe. But like Game 4, these equilibria are neither equivalent nor interchangeable: 1 prefers (E2,E2,E2), 2 prefers (E1,E1,E1), and combinations of E1 and E2 are not equilibria. Hence, without a way to coordinate, there is no reason to suppose that one equilibrium or the other will be achieved or, indeed, whether any equilibrium at all will prevail.

The relevance of this example, then, is this: First, both cooperative and competitive world orders (equilibria) can coexist within the structure of a single model. Second, since we have already incorporated power into the analysis by way of defining legitimate threats and counters, we cannot now use power to predict which equilibrium will prevail. Third, neither equilibrium is Pareto-dominated by the other, so there is no reason to suppose, as in Game 5 or in the repeated Prisoners' Dilemma, that states will coordinate “naturally” to one equilibrium rather than the other because of the relative efficiency of outcomes. Fourth, the existence of a collective security equilibrium does not depend on the assumption that states maximize absolute gain, nor does a competitive equilibrium depend on the assumption that states maximize relative gain—both assumptions are equivalent here because total resources are constant in our model. Thus, the resolution of the debate over goals is not, per se, an essential step to explaining cooperation or to establishing competitive and cooperative outcomes as equilibria. Finally, because states can be eliminated in an E1-type equilibrium (if  $n > 3$ ) and because only “big” states can be beneficiaries of resource transfers, states should be concerned with relative resources (or at least with the possibility that their position makes them especially vulnerable to elimination). But since states cannot be eliminated if an E2-type equilibrium prevails, coordination to this equi-

librium allows states to maximize absolute resources. In this way, then, the model allows instrumental goals to be endogenously determined as a part of the description of the equilibrium that prevails.

## V. THE DEBATE RECONSIDERED

The preceding discussion reveals that learning how states coordinate to achieve one equilibrium rather than another or none at all is an essential part of any general theory of international processes. If there are multiple equilibria in so simple a model as the one just described, then we can be confident that this multiplicity characterizes an even more complex reality. In fact, if countries in our model can partition themselves into exhaustive and disjoint subsets prior to the game's first move and if we call each element of a partition an alliance, then there is a more general class of equilibria that admits of a concern with relative and absolute gains, and that is described thus:<sup>33</sup>

E3. Members of the same alliance then play as in E2 with respect to each other, and as in either E1 or E2 with respect those outside of their alliance. That is, an alliance is a collective security arrangement in which alliance members are punished for any defection. And depending on an alliance's size, it either plays as in E1 against excluded members (if it is "small") and therefore is an "aggressive" alliance, or (if it is "large") it plays as in E2 and enforces a universal collective security system.

Thus, in addition to the extremes of an all-encompassing collective security arrangement versus one in which agreements are forged at the time threats are made, there are intermediate possibilities so that coordination involves the selection of an equilibrium from a potentially vast menu.

But having thus established that both realist and neoliberal equilibria can coexist, the question remains as to whether states can coordinate more easily to one type than to another. Hence, looking first at the arguments realists might muster in support of the view that an E1-type equilibrium is more likely to be realized, and allowing ourselves the liberty of moving beyond the strict confines of our analysis, notice first that collective security calls for states to "do nothing" until there is a defection that warrants punishment. Hence, as the game unfolds, states might reasonably question whether others are abiding by noncompetitive strategies or whether they are merely postponing making a threat until cir-

<sup>33</sup> Emerson M. S. Niu and Peter C. Ordeshook, "Alliance in Anarchic International Systems," *International Studies Quarterly* 38 (June 1994).

cumstances (for example, exogenously induced changes in the distribution of resources) are favorable to that purpose (in which case, if they plan ahead, cooperation "unravels" and competition prevails).

Second, although E2 requires that defectors be punished, making the first move to punish is rational only if the partners maintain their commitment to it. Because a collective security equilibrium is subgame perfect in our model, doing so is rational here. But as a practical matter we should not ignore the possibility that a defection of one type increases the perceived likelihood of further defections, so that defection has an influence on beliefs that goes beyond what our current analysis allows. Our example, after all, assumes that all countries have perfect foresight, whereas if there is something left to chance, then the viability of a collective security agreement may be reduced if beliefs are conditional on the actions of states as the game unfolds.

Third, that collective security is an equilibrium means only that no state has an incentive to defect *unilaterally* from the agreement. This does not mean that states cannot gain if two or more defect simultaneously. For example, if states 2 and 3 defect from (E2,E2,E2) to (E2,E1,E1), then 2 gains and 3 loses nothing. And, again stepping outside the limits of our formal analysis, 2 can presumably reward 3 somehow for its compliance. Indeed, if we are willing to assume that states can coordinate to achieve one type of equilibrium, then we should be willing to assume that subsets of them can coordinate to achieve other ends, including aggressive alliances designed to take advantage of the compliance of others.

Finally, the realist can rely simply on the different characteristics of equilibria in our model. Although (E1,E1,E1) and (E2,E2,E2) are both equilibria, (E2,E2,E2) is less stable because it is not *strong*. If 1 defects and threatens (150,0,150), the strategy E2 calls for 3 to "reject" so that 2 and 3 punish 1. But since 3 cannot gain or lose resources, it is indifferent toward rejecting or accepting 1's offer. Thus, (E2,E2,E2) is an equilibrium in a weak sense: 3 has neither a positive incentive to defect from E2 nor a positive incentive to abide by it. And this weakness may be precisely what realists refer to when they argue that even if states agree to play cooperatively, they must nevertheless make preparations for a more conflictual world.

This assessment should not be interpreted as unqualified support for the realist view, however. Rather, the "weakness" of a collective security equilibrium in our model suggests that the equilibria neoliberals hypothesize (as opposed to the type realists predict) require "strengthening" if they are to be realized or otherwise maintained. Indeed, it seems likely that the attractiveness of a collective security equilibrium can be more



readily enhanced than a conflictual one. There are positive externalities in the world that are arguably more difficult to realize when states are concerned about threats to their sovereignty. Without modeling such things directly, it seems reasonable to suppose that states can coordinate to stable monetary systems and efficient trade policies, to name a few examples, only when they are not concerned that their partners pose a military threat: if realizing mutually beneficial externalities requires nurturing in the form of signals that agreements will be adhered to, then competition in a military domain may lead (coordinate) states to act competitively in other domains. We are not surprised, then, that neoliberals emphasize regimes and their institutional foundations. By allowing states to coordinate to mutually beneficial outcomes in one domain, regimes and institutions afford them the opportunity to signal intentions with respect to other domains and thereby coordinate actions in those domains.

Of course, realists cannot wholly discount the relevance of institutions. Alliances are a part of their argument and institutions can be as necessary to the maintenance of a limited collective security arrangement designed to meet a common military threat as they are to the maintenance of an all-encompassing collective security arrangement. The realists argue though, that certain types of alliances and the institutions that service them arise “naturally” out of the competition among states and the need to ensure one’s sovereignty in anarchic systems. The alliances that fail to survive are those that do not establish these institutions. The realist view, then, has a Darwinian flavor that can be supported only by further analysis of the processes whereby states coordinate to achieve different equilibria in the context of a model that allows cooperation as well as competition.

The purpose of this essay, though, is not to take a position in the realist-neoliberal debate, if only because we know too little about the structure of international affairs and the ways in which people and states coordinate in complex strategic environments. This essay, then, is less a critique of realism and neoliberalism than it is an acknowledgment of the fact that once the centrality of coordination and equilibrium selection is appreciated, many if not most of the insights and conclusions from both schools of thought can be made part of a unified whole and central to the construction of any general paradigm. We also want to emphasize, though, that the phenomena that concern us are complex and that existing modes of inquiry—polemical argument, formulation of ad hoc definitions, gathering of case studies to buttress one side or the other, and generalization based on some specific two-person game—appear to have

reached the point of diminishing marginal returns. Thus, choosing between these two competing schools of thought is at present largely a function of the emphasis one chooses to place on different parameters and of taste—hence, this essay's title.

It is true that any model of international politics must begin with an assumption about goals as an initial operating hypothesis. And despite the occasional national leader bent on world or regional domination, there is little to dissuade us from assuming that absolute gain is the primary goal that, depending on circumstances, can be transformed into a derivative concern with relative gain. But we also cannot ignore that the circumstances dictating the compatibility or incompatibility of specific goals are themselves endogenous and depend on what states believe about the beliefs and strategies of other states.

Recall our discussion of the hegemon's role, and notice that this discussion can be conducted without reference to goals. Although what we say is predicated on the supposition that each state's fundamental goal is welfare maximization, predicting whether cooperation or conflict will emerge after the decline of a hegemon does not require a reassessment of goals. Instead, prediction requires an assessment of the viability of alternative coordinating mechanisms. If a hegemon's decline is accompanied by state actions that are consistent with relative resource maximization—with a less cooperative and more conflictual environment—the explanation for these actions is not that goals have changed, since that merely redescribes events. Rather, the observation that states can no longer coordinate to the same outcomes as before requires an explanation that refers to beliefs, feasible strategies, the relation between strategies and outcomes, and the properties of different equilibria.

It may be true, as Krasner argues,<sup>34</sup> that equilibrium selection in a posthegemonic system depends on things that we think of as components of state power. To suppose that the institutions that emerge to facilitate cooperation or conflict do not represent the capabilities of states is unwarranted because it ignores the fact that "something" must structure international relations. Regardless of the level at which we conceptualize matters, then, coordination remains an essential part of equilibrium selection and the extent to which states focus on relative gain remains dependent on whether states coordinate to a wholly cooperative or to a competitive equilibrium. It follows that explanations of conflict and cooperation in systems without a hegemon require an assessment of coor-

<sup>34</sup> Krasner (fn. 3).

dination and of the mechanisms required to coordinate to one type of equilibrium rather than another.

Are international affairs so risky that states cannot rely on collective security to ensure their sovereignty, or are the gains from cooperation sufficiently great that wholly competitive policies are antiquated? Has global territorial competition been replaced by competition for economic dominance? To what extent is the ability to coordinate sensitive to domestic politics? Is economic competition conducted by extraterritorial entities more benign than other forms? Have institutional inventions and the technologies that service them made coordination appreciably less difficult? Is the concept of the nation-state itself becoming less relevant with the rise of new international actors and forms of international organization to shape a world economy?

Answers to such questions require a coherent theoretical structure, and although we do not have the temerity to attempt a description of a general theory, we can discern what such a theory would require. First, rather than deal with state goals as a primary explanatory variable, it should focus on the properties of different equilibria, including their durability (stability) in the event of accidental deviations and the likelihood that they can prevail under different assumptions about system dynamics. Second, although we may choose to allow power and the pursuit of relative gain to influence equilibrium selection at one level of analysis, our theory should render such goals the consequence of the selection of an equilibrium in some higher or more general level coordination problem. Finally, that theory should clarify the role of institutions in the evolution of beliefs, in coordination, and in the enhancement of the attractiveness of equilibria. We should realize, though, that owing to the complexity and inclusiveness of the phenomena under consideration, the likelihood of producing some all-encompassing, mathematically rigorous theory is low. Instead, using basic tools drawn from game theory and other fields, we must begin to develop first principles that focus on the ways people coordinate strategies so as to achieve and maintain different equilibria and to render cooperative equilibria more impervious to error and misjudgment.